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10/759,523	01/16/2004	Paul Anthony Thomas	60130-1987;03MRA0008	7042

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BIRMINGHAM, MI 48009

EXAMINER

KING, BRADLEY T

ART UNIT	PAPER NUMBER
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3683

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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**MAILED**

JAN 29 2007

**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/759,523  
Filing Date: January 16, 2004  
Appellant(s): THOMAS ET AL.

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Karin H. Butchko  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/31/2006 appealing from the Office action mailed 6/01/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,049,087	Heinz	9-1977
EP 0 703 378	Forni	3-1996

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 4-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0-703 378 in view of Heinz et al (US# 4049087).

EP 0 703 378 discloses an assembly including; a brake caliper having an outboard side; a brake pad 12; a pad spring 26 including a spring planar region; and a pad retainer 32 including a retainer planar region having a first radius for engagement with said spring planar region of the pad spring to restrain radial movement of the brake pad, wherein the pad retainer is secured to the outboard side of the brake caliper at a second radius that is less than the first radius (see figure 3), the pad retainer further including a crook (see figure 3) at an end of the retainer planar region, wherein a part of the spring planar region engages the pad retainer, thereby defining an engaging region of the spring planar region. EP 0 703 378 lacks the lateral edge region of the engaging region adjacent to the outboard side of the brake caliper being rounded. Heinz et al discloses a similar spring assembly and further teach lug portions 5-6 to facilitate

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attachment to the brake pad. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include spring lugs as taught by Heinz et al on the spring of EP 0 703 378 to ensure proper retention, thereby increasing the security of the device. Also note figure 3 of Heinz.

Regarding claims 7-8, see figure 1.

Regarding claims 9-12, EP 0 703 378 further lack the specific crook radius dimension. It is noted that the instant disclosure fails to indicate any criticality in the dimension and further teaches that the ranges may be broadened. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize various crook radii of EP 0 703 378 and Heinz et al depending on the size of the brake assembly and thickness of the retainer to facilitate manufacture (thicker materials will bend to greater radii) and reduce stress concentrations in the element. Also note, In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

Regarding claim 21, the examiner takes official notice that the method steps of stamping and pressing are well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize stamping and pressing operations as known in the art to form the spring of EP 0703378 and Heinz et al as an obvious means of manufacture.

**(10) Response to Argument**

**EP 0 703 378 in view of Heinz et al**

It is maintained that one of ordinary skill in the art would appreciate that utilizing the folded lugs taught by Heinz in addition to the lug/hole connections at the end of the spring would provide a greater degree of security and retention to the spring, particularly in the middle region of the spring. While Appellant states that there is no reason to employ the legs of Heinz et al with the clip of the European reference, it is maintained that one would do so for additional security and retention. One of ordinary skill in the art appreciates that certain applications demand a greater level of performance and reliability. Thus, for applications such as race or commercial vehicles, greater retention is desirable.

Appellant further contends that the modification results in unnecessary cost. It is maintained that while the additional retention elements may increase production cost, one of ordinary skill in the art appreciates the trade-offs between performance and costs. The benefits of greater retention in some applications can outweigh the increased cost associated with production.

Regarding Appellant's contention that the utilization of the clip of Heinz et al on the spring of EP 0 703 378 could make the brake pad weaker, no convincing support nor evidence for this statement has been provided. Further, the stresses and cracks discussed by Appellant are dependent on material types, sizes, shapes and methods of

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manufacture. Nothing in the prior art of record indicates that the modification would result in a weaker spring.

Regarding Appellants arguments that the claimed invention solves problems of the prior art that are not solved by Heinz et al, it is maintained that the EP 0 703 378, as modified by Heinz et al, would result in the structure recited by the independent claims and further would function in substantially the same way. It is maintained that the rejections are proper.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BTK

January 22, 2007

 1/22/07  
**BRADLEY KING**  
**PATENT EXAMINER**

Conferees:

James McClellan

Robert Siconolfi

